# Coil Filters
Grease Control

plasma-cleanair
AIR, ODOUR & GREASE CONTROL

## Capture high levels of grease at source


Coil Filters capture high levels of grease particulate at source and are a direct replacement for traditional baffle filters which remove just 20-40% of grease.

When selecting an odour control solution, Coil Filters act as a first line of defence, reducing the risk of fire. Coil Filters also enhance performance of odour control equipment positioned downstream, as well as reducing the frequency of ongoing maintenance.

## Benefits

- Coil Filters are 80% efficient on 5 µm particles and 95%efficient on 6 µm particles
- Significantly less build up of grease within kitchen canopy exhaust plenums and associated ductwork, reducing the risk of fire
- Reduction in annual duct cleaning and ESP Manitenance costs
- No ongoing consumables or specialist skilled maintenance required
- Enhances cooking odour removal performance when treating with UVC or ozone injection
- Prolongs the lifespan of fine filtration and activated carbon, reducing ongoing running costs of the RECIRC Air Units

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CIBSE CPD FEA Foodservice Equipment Association Information Involvement Influence BESA BUILDING ENGINEERING SERVICES ASSOCIATION

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## How Coil Filters Work

1. Oil vapours condense on the large surface area of the filter coils as heat is transferred from the air
2. Air is spun into a vortex and the droplets of oil and grease continue in a straight line
3. Oil and grease particles then collide with the filter coils, and the oil-coated filter surface traps more oil and grease due to its enhanced viscosity
4. Oil and grease droplets simply settle due to gravity and are collected for recycling

## Introduction to Kitchen Ventilation from Plasma Clean AIr

Grease, odour and smoke emissions produced by commercial kitchens are an increasing concern both for existing establishments and for new build projects. Therefore, it is essential to implement a suitable grease and odour control strategy - as a matter of urgency - to ensure that the kitchen emissions comply with DW/172 and EMAQ, DEFRA guidance. This is not just about protecting the environment from nuisance emissions, but also reducing grease build up in the ductwork, which could present a fire risk if left untreated.

Plasma Clean Air's Kitchen Ventilation range consists of a range of modular solutions for grease, smoke and odour control which can be used alone or can be combined to provide a site-specific solution. For example, a pizza restaurant will not require the same level of grease, odour and smoke control equipment as a char-grill steak house.

Starting at the canopy, our Coil Filters are designed to capture 95% of grease particles; between 55-70% more than traditional baffle-type filters. Our Xtract range releases natural ozone - a superb disinfectant and odour neutraliser - directly into kitchen ventilation systems. Our Techniclean range includes the canopy mounted **Techniclean CM**, combining high intensity UV-C light with ozone technology to break down odour and grease in the air, as well as the **Techniclean Mini**, **5000** and **7500** models; perfect for new projects or retrofitting into existing ductwork. High levels of grease and smoke particulate are treated by the Electrostatix and combining Electrostatic Precipitation with UV-c, are our ESP UV units, provide highly efficient removal of grease, smoke and odour from a compact unit.

For a final polish - removing residual ozone - Activated Carbon filters are the ideal choice for low level extraction. Our Carbon Housing allows Activated Carbon filters to sit in 3, 6 or 9 easily mountable Sitesafe Discarb units

RECIRC is a recirculating air filtration system designed to treat grease, smoke and odour in commercial kitchens with electrical appliances where it is not possible to extract to the outside

When it comes to Control Panels, our **Air Flow Interlock** range is used to synchronise the operation of all of our Kitchen Ventilation products with detected air flow. The equipment is automatically turned off when the system is shut down, preventing accidental exposure to UV-C light and ozone, whilst ensuring energy efficiency for the system. Options are available for Lamp Life Indicators, Lamp Fault and BMS interface.

## Maintenance

Depending on the level of cooking, the system can be washed daily or as part of a weekly cleaning routine by kitchen staff

## Warranty

1 year Manufacturer's Warranty (subject to terms and conditions)

## Technical Specifications & Data

| | CF 395 | CF 495 |
|---|---|---|
| Dimensions (H/W/D) | 395 x 395 x 45mm | 495 x 495 x 45mm |
| Air Volume | 0.24 m³/s | 0.34 m³/s |
| Face velocity | 4-6 m/s | |
| Pressure drop | 200Pa at design volume | |
| Noise | <50dB | |
| Finish | Grade 304 stainless steel | |
| Weight | 3.5kg | 3.9kg |



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